

UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF TEXAS  
WACO DIVISION

SABLE NETWORKS, INC. AND  
SABLE IP, LLC,

*Plaintiffs,*

v.

RIVERBED TECHNOLOGY, INC.,

*Defendant.*

Civil Action No. \_\_\_\_\_

JURY TRIAL DEMANDED

**COMPLAINT FOR PATENT INFRINGEMENT**

Sable Networks, Inc. and Sable IP, LLC (collectively, “Sable” or “Plaintiffs”) bring this action and make the following allegations of patent infringement relating to U.S. Patent Nos.: 6,954,431 (the ““431 patent”); 6,977,932 (the ““932 patent”); 8,085,775 (the ““775 patent”); 8,243,593 (the ““593 patent”); and 8,817,790 (the ““790 patent”); (collectively, the “patents-in-suit”). Defendant Riverbed Technology, Inc. (“Riverbed” or “Defendant”) infringes the patents-in-suit in violation of the patent laws of the United States of America, 35 U.S.C. § 1 *et seq.*

**INTRODUCTION**

1. The patents-in-suit arise from technologies developed by Dr. Lawrence G. Roberts - one of the founding fathers of the internet.<sup>1</sup> The patents relate to technologies for efficiently managing the flow of data packets over routers and switch devices. Dr. Roberts and engineers at Caspian Networks, Inc. and later Sable Networks, Inc. developed these technologies to address the increasing amount of data sent over computer networks.

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<sup>1</sup> Chris Woodford, THE INTERNET: A HISTORICAL ENCYCLOPEDIA VOLUME 2 at 204 (2005) (“Widely regarded as one of the founding fathers of the Internet, Lawrence Roberts was the primary architect of ARPANET, the predecessor of the Internet.”).

2. Dr. Roberts is best known for his work as the Chief Scientist of the Advanced Research Projects Agency (ARPA) where he designed and oversaw the implementation of ARPANET, the precursor to the internet. Dr. Roberts' work on ARPANET played a key role in the development of digital network transmission technologies.<sup>2</sup> Initially, ARPANET was used primarily to send electronic mail and Dr. Roberts developed the first program for reading and sending electronic messages.



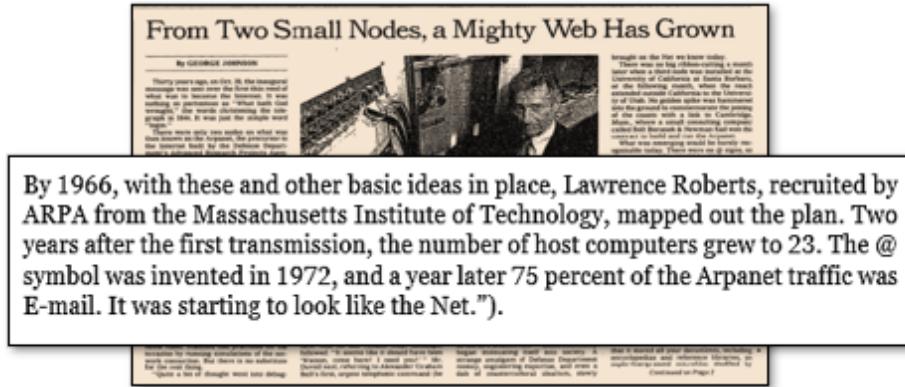
Keenan Mayo and Peter Newcomb, *How The Web Was Won*, VANITY FAIR at 96-97 (January 7, 2009); *One of the Engineers Who Invented the Internet Wants to Build A Radical new Router*, IEEE SPECTRUM MAGAZINE (July 2009); Katie Hafner, *Billions Served Daily, and Counting*, N.Y. TIMES at G1 (December 6, 2001) (“Lawrence Roberts, who was then a manager at the Advanced Research Projects Agency's Information Processing Techniques Office, solved that problem after his boss began complaining about the volume of e-mail piling up in his inbox. In 1972, Dr. Roberts produced the first e-mail manager, called RD, which included a filing system, as well as a Delete function.”).

3. Dr. Roberts' work on ARPANET played a key role in the development of packet switching networks. Packet switching is a digital network transmission process in which data is broken into parts which are sent independently and reassembled at a destination. Electronic messages sent over the ARPANET were broken up into packets then routed over a network to a destination. “In designing the ARPANET, Roberts expanded on the work he'd done at MIT, using

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<sup>2</sup> Katie Hafner, *Lawrence Roberts, Who Helped Design Internet's Precursor*, N.Y. TIMES at A2 (December 31, 2018) (“Dr. Roberts was considered the decisive force behind packet switching, the technology that breaks data into discrete bundles that are then sent along various paths around a network and reassembled at their destination.”).

those tiny data packets to send information from place to place.”<sup>3</sup> Packet switching has become the primary technology for data communications over computer networks.



George Johnson, *From Two Small Nodes, a Mighty Web Has Grown*, N.Y. TIMES at F1 (October 12, 1999).

4. After leaving ARPANET, Dr. Roberts grew increasingly concerned that existing technologies for routing data packets were incapable of addressing the increasing amounts of data traversing the internet.<sup>4</sup> Dr. Roberts identified that as the “Net grows, the more loss and transmission of data occurs. Eventually, gridlock will set in.”<sup>5</sup>

***The Internet is broken. I should know: I designed it.*** In 1967, I wrote the first plan for the ancestor of today's Internet, the Advanced Research Projects Agency Network, or ARPANET, and then led the team that designed and built it. The main idea was to share the available network infrastructure by sending data as small, independent packets, which, though they might arrive at different times, would still generally make it to their destinations. The small computers that directed the data traffic—I called them Interface Message Processors, or IMPs—evolved into today's routers, and for a long time they've kept up with the Net's phenomenal growth. Until now.

<sup>3</sup> Code Metz, *Larry Roberts Calls Himself the Founder of The Internet. Who Are You To Argue*, WIRED MAGAZINE (September 24, 2012); John C. McDonald, FUNDAMENTALS OF DIGITAL SWITCHING at 211 (1990) (“The ARPANET was, in part, an experimental verification of the packet switching concept. Robert’s objective was a new capability for resource sharing.”).

<sup>4</sup> eWeek Editors, *Feeling A Little Congested*, E WEEK MAGAZINE (September 24, 2001) (“Lawrence Roberts, one of the primary developers of Internet precursor ARPANet and CTO of Caspian Networks, recently released research indicating that Net traffic has quadrupled during the past year alone.”).

<sup>5</sup> Michael Cooney, *Can ATM Save The Internet*, NETWORK WORLD at 16 (May 20, 1996); Lawrence Roberts, A RADICAL NEW ROUTER, IEEE Spectrum Vol. 46 34-39 (August 2009).

Lawrence Roberts, *A Radical New Router*, IEEE SPECTRUM Vol. 46(7) at 34 (August 2009) (emphasis added).

5. In 1998, Dr. Roberts founded Caspian Networks.<sup>6</sup> At Caspian Networks, Dr. Roberts developed a new kind of internet router to efficiently route packets over a network. This new router was aimed at addressing concerns about network “gridlock.” In a 2001 interview with Wired Magazine, Dr. Roberts discussed the router he was developing at Caspian Networks – the Apeiro. “Roberts says the Apeiro will also create new revenue streams for the carriers by solving the ‘voice and video problem.’ IP voice and video, unlike email and static Web pages, breaks down dramatically if there's a delay - as little as a few milliseconds - in getting packets from host to recipient.”<sup>7</sup>



Jim Duffy, *Router Newcomers take on Cisco, Juniper*, NETWORK WORLD at 14 (April 14, 2013); Stephen Lawson, *Caspian Testing Stellar Core Offering*, NETWORK WORLD at 33 (December 17, 2001); Tim Greene, *Caspian Plans Superfast Routing For The 'Net Core*, NETWORK WORLD at 10 (January 29, 2001); Andrew P. Madden, *Company Spotlight: Caspian Networks*, MIT TECHNOLOGY REVIEW at 33 (August 2005); and Loring Wirbel, *Caspian Moves Apeiro Router To Full Availability*, EE TIMES (April 14, 2003).

<sup>6</sup> Caspian Networks, Inc. was founded in 1998 as Packetcom, LLC and changed its name to Caspian Networks, Inc. in 1999.

<sup>7</sup> John McHugh, *The n-Dimensional Superswitch*, WIRED MAGAZINE (May 1, 2001).

6. The Apeiro debuted in 2003. The Apeiro, a flow-based router, can identify the nature of a packet – be it audio, text, or video, and prioritize it accordingly. The Apeiro included numerous technological advances including quality of service (QoS) routing and flow-based routing.

7. At its height, Caspian Networks Inc. raised more than \$300 million dollars and grew to more than 320 employees in the pursuit of developing and commercializing Dr. Roberts' groundbreaking networking technologies, including building flow-based routers that advanced quality of service and load balancing performance. However, despite early success with its technology and business, Caspian hit hard times when the telecommunications bubble burst.

8. Sable Networks, Inc. was formed by Dr. Sang Hwa Lee to further develop and commercialize the flow-based networking technologies developed by Dr. Roberts and Caspian Networks.<sup>8</sup> Sable Networks, Inc. has continued its product development efforts and has gained commercial success with customers in Japan, South Korea, and China. Customers of Sable Networks, Inc. have included: SK Telecom, NTT Bizlink, Hanaro Telecom, Dacom Corporation, USEN Corporation, Korea Telecom, China Unicom, China Telecom, and China Tietong.

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<sup>8</sup> Dr. Lee, through his company Mobile Convergence, Ltd. purchased the assets of Caspian Networks Inc. and subsequently created Sable Networks, Inc.



*SK Telecom and Sable Networks Sign Convergence Network Deal*, COMMS UPDATE – TELECOM NEWS SERVICE (February 4, 2009) (“South Korean operator SK Telecom has announced that it has signed a deal with US-based network and solutions provider Sable Networks.”); *China Telecom Deploys Sable*, LIGHT READING NEWS FEED (November 19, 2007) (“Sable Networks Inc., a leading provider of service controllers, today announced that China Telecom Ltd, the largest landline telecom company in China, has deployed the Sable Networks Service Controller in their network.”).

9. Armed with the assets of Caspian Networks Inc. as well as members of Caspian Networks’ technical team, Sable Networks, Inc. continued the product development efforts stemming from Dr. Roberts’ flow-based router technologies. Sable Networks, Inc. developed custom application-specific integrated circuits (“ASIC”) designed for flow traffic management. Sable Network, Inc.’s ASICs include the Sable Networks SPI, which enables 20 Gigabit flow processing. In addition, Sable Networks, Inc. developed and released S-Series Service Controllers (*e.g.*, S80 and S240 Service Controller models) that contain Sable Networks’ flow-based programmable ASICs, POS and Ethernet interfaces, and carrier-hardened routing and scalability from 10 to 800 Gigabits.

S-Series Products			
	S240	S80	S20
Throughput	240G Multi-Shelf System (Scales up to 720Gbps)	80G Single-Shelf System	20G Stand-Alone System
Interfaces	GIGE, 10GbE, POS	GigE, 10GbE, POS	GigE
Operation Mode	Transparent Mode / Routing Mode (BGP/OSPF...)		
Flow QoS	MR (Maximum Rate) / GR (Guaranteed Rate) / AR (Available Rate) / CR (Composite Rate)		
Flow Setup	1.5 M Flows / sec / Line Card		
Concurrent Flow	4 M Flows / Line Card		
Subscriber Management	8,000 Services Classification Rules / Line Card		

SABLE NETWORKS S-SERIES SERVICE CONTROLLERS (showing the S240-240G Multi-Shelf System, S80-80G Single-Shelf System, and S20-20G Stand-Alone System).

10. Sable pursues the reasonable royalties owed for Riverbed's use of the inventions claimed in Sable's patent portfolio, which arise from Caspian Networks and Sable Networks' groundbreaking technology.

#### SABLE'S PATENT PORTFOLIO

11. Sable's patent portfolio includes over 34 patent assets, including 14 granted U.S. patents. Dr. Lawrence Roberts' pioneering work on QoS traffic prioritization, flow-based switching and routing, and the work of Dr. Roberts' colleagues at Caspian Networks Inc. and Sable Networks, Inc. are claimed in the various patents owned by Sable.

12. Highlighting the importance of the patents-in-suit is the fact that the Sable's patent portfolio has been cited by over 1,000 U.S. and international patents and patent applications assigned to a wide variety of the largest companies operating in the computer networking field. Sable's patents have been cited by companies such as:

- Cisco Systems, Inc.<sup>9</sup>

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<sup>9</sup> See, e.g., U.S. Patent Nos. 7,411,965; 7,436,830; 7,539,499; 7,580,351; 7,702,765; 7,817546; 7,936,695; 8,077,721; 8,493,867; 8,868,775; and 9,013,985.

- Juniper Networks, Inc.<sup>10</sup>
- Broadcom Limited<sup>11</sup>
- EMC Corporation<sup>12</sup>
- F5 Networks, Inc.<sup>13</sup>
- Verizon Communications Inc.<sup>14</sup>
- Microsoft Corporation<sup>15</sup>
- Intel Corporation<sup>16</sup>
- Extreme Networks, Inc.<sup>17</sup>
- Huawei Technologies Co., Ltd.<sup>18</sup>

### **THE PARTIES**

#### **SABLE NETWORKS, INC.**

13. Sable Networks, Inc. (“Sable Networks”) is a corporation organized and existing under the laws of the State of California.

14. Sable Networks was formed to continue the research, development, and commercialization work of Caspian Networks Inc., which was founded by Dr. Lawrence Roberts to provide flow-based switching and routing technologies to improve the efficiency and quality of computer networks.

15. Sable Networks is the owner by assignment of all of the patents-in-suit.

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<sup>10</sup> See, e.g., U.S. Patent Nos. 7,463,639; 7,702,810; 7,826,375; 8,593,970; 8,717,889; 8,811,163; 8,811,183; 8,964,556; 9,032,089; 9,065,773; and 9,832,099.

<sup>11</sup> See, e.g., U.S. Patent No. 7,187,687; 7,206,283; 7,266,117; 7,596,139; 7,649,885; 8,014,315; 8,037,399; 8,170,044; 8,194,666; 8,271,859; 8,448,162; 8,493,988; 8,514,716; and 7,657,703.

<sup>12</sup> See, e.g., U.S. Patent Nos. 6,976,134; 7,185,062; 7,404,000; 7,421,509; 7,864,758; and 8,085,794.

<sup>13</sup> See, e.g., U.S. Patent Nos. 7,206,282; 7,580,353; 8,418,233; 8,565,088; 9,225,479; 9,106,606; 9,130,846; 9,210,177; 9,614,772; 9,967,331; and 9,832,069.

<sup>14</sup> See, e.g., U.S. Patent Nos. 7,349,393; 7,821,929; 8,218,569; 8,289,973; 9,282,113; and 8,913,623.

<sup>15</sup> See, e.g., U.S. Patent Nos. 7,567,504; 7,590,736; 7,669,235; 7,778,422; 7,941,309; 7,636,917; 9,571,550; and 9,800,592.

<sup>16</sup> See, e.g., U.S. Patent Nos. 7,177,956; 7,283,464; 9,485,178; 9,047,417; 8,718,096; 8,036,246; 8,493,852; and 8,730,984.

<sup>17</sup> See, e.g., U.S. Patent Nos. 7,903,654; 7,978,614; 8,149839; 10,212,224; 9,112,780; and 8,395,996.

<sup>18</sup> See, e.g., U.S. Patent Nos. 7,903,553; 7,957,421; 10,015,079; 10,505,840; and Chinese Patent Nos. CN108028828 and CN106161333.

**SABLE IP, LLC**

16. Sable IP, LLC (“Sable IP”) is a Delaware limited liability company with its principal place of business at 225 S. 6th Street, Suite 3900, Minneapolis, Minnesota 55402. Pursuant to an exclusive license agreement with Sable Networks, Sable IP is the exclusive licensee of the patents-in-suit.

**RIVERBED TECHNOLOGY, INC.**

17. Riverbed Technology, Inc. (“Riverbed”), is a Delaware corporation with its principal place of business at 680 Folsom Street, 6<sup>th</sup> Floor, San Francisco, California 94107. Riverbed may be served through its registered agent Corporation Service Company d/b/a CSC – Lawyers Incorporating Service Company, 211 E. 7<sup>th</sup> Street, Suite 620, Austin, Texas 78701. Riverbed is registered to do business in the State of Texas and has been since at least February 14, 2012.

18. Riverbed conducts business operations within the Western District of Texas where it sells, develops, and/or markets its products, including facilities at 515 Congress Avenue, Suite 2300, Austin, Texas 78701.

**JURISDICTION AND VENUE**

19. This action arises under the patent laws of the United States, Title 35 of the United States Code. Accordingly, this Court has exclusive subject matter jurisdiction over this action under 28 U.S.C. §§ 1331 and 1338(a).

20. This Court has personal jurisdiction over Riverbed in this action because Riverbed has committed acts within the Western District of Texas giving rise to this action and has established minimum contacts with this forum such that the exercise of jurisdiction over Riverbed would not offend traditional notions of fair play and substantial justice. Defendant Riverbed, directly and/or through subsidiaries or intermediaries (including distributors, retailers, and others),

has committed and continues to commit acts of infringement in this District by, among other things, offering to sell and selling products and/or services that infringe the patents-in-suit. Moreover, Riverbed is registered to do business in the State of Texas, has offices and facilities in the State of Texas, and actively directs its activities to customers located in the State of Texas.

21. Venue is proper in this district under 28 U.S.C. §§ 1391(b)-(d) and 1400(b). Defendant Riverbed is registered to do business in the State of Texas, has offices in the State of Texas, has transacted business in the Western District of Texas and has committed acts of direct and indirect infringement in the Western District of Texas.

22. Riverbed has a regular and established place of business in this District and has committed acts of infringement in this District. Riverbed maintains a permanent office at 515 Congress Avenue, Suite 2300, Austin, Texas 78701, which is located within this District. Riverbed has also committed acts of infringement in this District by commercializing, marketing, selling, distributing, testing, and servicing certain Accused Products.

23. This Court has personal jurisdiction over Riverbed. Riverbed has conducted and does conduct business within the State of Texas. Riverbed, directly or through subsidiaries or intermediaries (including distributors, retailers, and others), ships, distributes, makes, uses, offers for sale, sells, imports, and/or advertises (including by providing an interactive web page) its products and/or services in the United States and the Western District of Texas and/or contributes to and actively induces its customers to ship, distribute, make, use, offer for sale, sell, import, and/or advertise (including the provision of an interactive web page) infringing products and/or services in the United States and the Western District of Texas. Riverbed, directly and through subsidiaries or intermediaries (including distributors, retailers, and others), has purposefully and voluntarily placed one or more of its infringing products and/or services, as described below, into

the stream of commerce with the expectation that those products will be purchased and used by customers and/or consumers in the Western District of Texas. These infringing products and/or services have been and continue to be made, used, sold, offered for sale, purchased, and/or imported by customers and/or consumers in the Western District of Texas. Riverbed has committed acts of patent infringement within the Western District of Texas. Riverbed interacts with customers in Texas, including through visits to customer sites in Texas. Through these interactions and visits, Riverbed directly infringes the patents-in-suit. Riverbed also interacts with customers who sell the Accused Products into Texas, knowing that these customers will sell the Accused Products into Texas, either directly or through intermediaries.

24. Riverbed has minimum contacts with this District such that the maintenance of this action within this District would not offend traditional notions of fair play and substantial justice. Thus, the Court therefore has both general and specific personal jurisdiction over Riverbed.

#### **THE ASSERTED PATENTS**

##### **U.S. PATENT No. 6,954,431**

25. U.S. Patent No. 6,954,431 (the “‘431 patent”) entitled, *Micro-Flow Management*, was filed on December 6, 2001, and claims priority to April 19, 2000. The ‘431 patent is subject to a 35 U.S.C. § 154(b) term extension of 722 days. Sable Networks, Inc. is the owner by assignment of the ‘431 patent. Sable IP is the exclusive licensee of the ‘431 patent. A true and correct copy of the ‘431 patent is attached hereto as Exhibit A.

26. The ‘431 patent discloses novel methods and systems for managing data traffic comprising a plurality of micro-flows through a network.

27. The inventions disclosed in the ‘431 patent improve the quality of service in data transmissions over a computer network by relying on per micro-flow state information that enables rate and delay variation requirements to be within set quantified levels of service.

28. The ‘431 patent discloses technologies that speed the rate at which data can effectively travel over a computer network by optimizing packet discarding.

29. The ‘431 patent discloses the use of micro-flow state information to determine the rate of each flow, thus optimizing discards and optimizing the quality of service of data transmission.

30. The ‘431 patent discloses methods and systems that avoid networking system degradation by not overloading network switch buffers.

31. The ‘431 patent discloses a method for managing data traffic through a network that determines a capacity of a buffer containing a micro-flow based on a characteristic.

32. The ‘431 patent discloses a method for managing data traffic through a network that assigns an acceptable threshold value for the capacity of the buffer over a predetermined period of time.

33. The ‘431 patent discloses a method for managing data traffic through a network that delegates a portion of available bandwidth in the network to the micro-flow.

34. The ‘431 patent discloses a method for managing data traffic through a network that uses the buffer for damping jitter associated with the micro-flow.

35. The ‘431 patent has been cited by 103 patents and patent applications as relevant prior art. Specifically, patents issued to the following companies have cited the ‘431 patent as relevant prior art:

- Cisco Systems, Inc.
- Juniper Networks, Inc.
- Broadcom Limited
- Intel Corporation
- Sun Microsystems, Inc.
- Oracle Corporation
- Samsung Electronics Co., Ltd.
- Adtran, Inc.

- Time Warner Cable, Inc.
- FSA Technologies, Inc.
- Internap Corporation
- France Telecom
- The Boeing Company
- Wistaria Trading, Ltd.

**U.S. PATENT No. 6,977,932**

36. U.S. Patent No. 6,977,932 (the “‘932 patent”) entitled, *System and Method for Network Tunneling Utilizing Micro-Flow State Information*, was filed on January 16, 2002. The ‘932 patent is subject to a 35 U.S.C. § 154(b) term extension of 815 days. Sable Networks, Inc. is the owner by assignment of the ‘932 patent. Sable IP is the exclusive licensee of the ‘932 patent. A true and correct copy of the ‘932 patent is attached hereto as Exhibit B.

37. The ‘932 patent discloses novel methods and apparatuses for utilizing a router capable of network tunneling utilizing flow state information.

38. The inventions disclosed in the ‘932 patent enable the use of micro-flow state information to improve network tunneling techniques.

39. The inventions disclosed in the ‘932 patent maintain flow state information for various quality of service characteristics by utilizing aggregate flow blocks.

40. The aggregate flow blocks disclosed in the ‘932 patent maintain micro-flow block information.

41. The technologies claimed in the ‘932 patent speed the flow of network traffic over computer networks by avoiding time consuming and processor intensive tasks by combining flow state information with other information such as label switched paths utilization information. This permits the micro-flows associated with an aggregate flow block to all be processed in a similar manner.

42. The technologies disclosed in the ‘932 patent result in more efficient computer networks by avoiding the processor intensive tasks of searching millions of flow blocks to identify flow blocks having certain micro-flow characteristics in order to process large numbers of micro-flows.

43. The ‘932 patent discloses a router capable of network tunneling utilizing flow state information containing an aggregate flow block having tunnel specific information for a particular network tunnel.

44. The ‘932 patent discloses a router capable of network tunneling utilizing flow state information containing a flow block having flow state information for a micro-flow, the flow block further including an identifier that associates the flow block with the aggregate flow block.

45. The ‘932 patent discloses a router capable of network tunneling utilizing flow state information wherein the aggregate flow block stores statistics for the particular network tunnel.

46. The ‘932 patent has been cited by 86 patents and patent applications as relevant prior art. Specifically, patents issued to the following companies have cited the ‘932 patent as relevant prior art:

- Cisco Systems, Inc.
- Juniper Networks, Inc.
- Avaya, Inc.
- Fujitsu, Ltd.
- Intel Corporation
- Nokia Corporation
- Qualcomm, Inc.
- Sprint Communications Co.
- Telefonaktiebolaget LM Ericsson
- Verizon Communications, Inc.

**U.S. PATENT No. 8,085,775**

47. U.S. Patent No. 8,085,775 (the “‘775 patent”) entitled, *Identifying Flows Based On Behavior Characteristics And Applying User-Defined Actions*, was filed on July 31, 2006. The ‘775 patent is subject to a 35 U.S.C. § 154(b) term extension of 467 days. Sable Networks, Inc. is the owner by assignment of the ‘775 patent. Sable IP is the exclusive licensee of the ‘775 patent. A true and correct copy of the ‘775 patent is attached hereto as Exhibit C.

48. The ‘775 patent discloses novel methods for identifying and handling a single application flow of a plurality of information packets.

49. The inventions disclosed in the ‘775 patent teach methods of identifying, classifying, and controlling information packet flows based on their observed behavior rather than the content of the data packets.

50. The ‘775 patent teaches technologies that can effectively identify and control specific types of data traffic despite attempts to conceal the content or type of traffic represented by the data packets.

51. The ‘775 patent discloses a machine-implemented method for the identification and handling of a single application flow that creates a flow block as the first packet of a flow is processed by a router.

52. The ‘775 patent discloses a machine-implemented method for the identification and handling of a single application flow that utilizes a flow block adapted to store payload-content agnostic behavioral statistics about the flow.

53. The ‘775 patent discloses a machine-implemented method for the identification and handling of a single application flow that updates the flow block with the flow’s payload-content agnostic behavioral statistics as packets belonging to the flow are processed by the router.

54. The ‘775 patent discloses a machine-implemented method for the identification and handling of a single application flow that utilizes a flow incapable of being identified by header information alone.

55. The ‘775 patent discloses a machine-implemented method for the identification and handling of a single application flow that heuristically determines whether at least one user-specified policy is satisfied by the payload-content agnostic behavioral statistics stored in the flow block.

56. The ‘775 patent discloses a machine-implemented method for the identification and handling of a single application flow that includes functionality wherein the payload-content agnostic behavioral statistics for the flow are calculated by the router.

57. The ‘775 patent discloses a machine-implemented method for the identification and handling of a single application flow that includes functionality wherein the payload-content agnostic behavioral statistics reflect the empirical behavior of the flow.

58. The ‘775 patent discloses a machine-implemented method for the identification and handling of a single application flow that includes functionality wherein at least one of the payload-content agnostic behavioral statistics is one of the following characteristics: (1) total byte count accumulated for the flow, (2) flow life duration, (3) average rate of flow, (4) average packet size, (5) average packet rate, (6) average inter-packet gap, (7) instantaneous flow rate, and (8) moving average flow rate.

59. The ‘775 patent has been cited by 36 patents and patent applications as relevant prior art. Specifically, patents issued to the following companies have all cited the ‘775 patent as relevant prior art:

- Cisco Systems, Inc.
- Calix, Inc.

- British Telecommunications Public Limited Company
- Extreme Networks, Inc.
- Fujitsu Ltd.
- Level 3 Communications, Inc.
- Nokia Corporation
- Sprint Spectrum L.P.
- Solana Networks Inc.
- Taiwan Semiconductor Mfg. Co. Ltd.
- Verizon Communications, Inc.

**U.S. PATENT No. 8,243,593**

60. U.S. Patent No. 8,243,593 entitled, *Mechanism for Identifying and Penalizing Misbehaving Flows in a Network*, was filed on December 22, 2004. The '593 patent is subject to a 35 U.S.C. § 154(b) term extension of 1,098 days. Sable Networks, Inc. is the owner by assignment of the '593 patent. Sable IP is the exclusive licensee of the '593 patent. A true and correct copy of the '593 patent is attached hereto as Exhibit D.

61. The '593 patent discloses novel methods and systems for processing a flow of a series of information packets.

62. The inventions disclosed in the '593 patent teach technologies that permit the identification and control of less desirable network traffic.

63. Because the characteristics of data packets in undesirable network traffic can be disguised, the '593 patent improves the operation of computer networks by disclosing technologies that monitor the characteristics of flows of data packets rather than ancillary factors such as port numbers or signatures.

64. The '593 patent discloses tracking the behavioral statistics of a flow of data packets that can be used to determine whether the flow is undesirable.

65. The '593 patent further discloses taking actions to penalize the flow of undesirable network traffic.

66. The ‘593 patent discloses a method for processing a flow of a series of information packets that maintains a set of behavioral statistics for the flow, wherein the set of behavioral statistics is updated based on each information packet belonging to the flow, as each information packet is processed.

67. The ‘593 patent discloses a method for processing a flow of a series of information packets that determines, based at least partially upon the set of behavioral statistics, whether the flow is exhibiting undesirable behavior.

68. The ‘593 patent discloses that the determination as to whether the flow is exhibiting undesirable behavior is made regardless of the presence or absence of congestion.

69. The ‘593 patent discloses a method for processing a flow of data packets that enforces a penalty on the flow in response to a determination that the flow is exhibiting undesirable behavior.

70. The ‘593 patent has been cited by 17 patents and patent applications as relevant prior art. Specifically, patents issued to the following companies have cited the ‘593 patent as relevant prior art.

- Cisco Systems, Inc.
- AT&T, Inc.
- International Business Machines Corporation
- Telecom Italia S.p.A.
- McAfee, LLC

#### **U.S. PATENT No. 8,817,790**

71. U.S. Patent No. 8,817,790 (the “‘790 patent”) entitled, *Identifying Flows Based on Behavior Characteristics and Applying User-Defined Actions*, was filed on September 23, 2011, and claims priority to July 31, 2006. Sable Networks, Inc. is the owner by assignment of the ‘790

patent. Sable IP is the exclusive licensee of the '790 patent. A true and correct copy of the '790 patent is attached hereto as Exhibit E.

72. The '790 patent claims specific methods and devices for handling a flow of information packets.

73. The '790 patent discloses methods and systems for efficiently identifying undesirable traffic over data networks.

74. The '790 patent teaches technologies that identify traffic not by inspecting the payload of each data packet, but rather by analyzing and classifying the behavior of the data flows to identify undesirable traffic.

75. The '790 patent discloses applying a user-specified action associated with a policy applicable to data flows that are designated undesirable.

76. The '790 patent discloses a method of handling a flow that processes a flow comprised of two or more information packets having header information in common.

77. The '790 patent discloses a method of handling a flow that stores header-independent statistics about the flow in a flow block associated with the flow.

78. The '790 patent discloses a method of handling a flow that updates the header-independent statistics in the flow block as each information packet belonging to the flow is processed.

79. The '790 patent discloses a method of handling a flow that categorizes the flow as one or more traffic types by determining whether the header-independent statistics match one or more profiles corresponding to a traffic type.

80. The '790 patent discloses a method of handling a flow that performs an operation that is determined according to the one or more traffic types on one or more information packets

belonging to the flow if the one or more traffic types match one or more particular traffic types designated by a user.

81. The ‘790 patent family has been cited by 24 United States and international patents and patent applications as relevant prior art. Specifically, patents issued to the following companies have cited the ‘790 patent family as relevant prior art:

- Cisco Systems, Inc.
- Solana Networks, Inc.
- British Telecommunications Public Limited Company
- Level 3 Communications, LLC
- Calix, Inc.
- Nokia Corporation
- Verizon Communications, Inc.
- Sprint Spectrum L.P.
- Hon Hai Precision Industry Co., Ltd.

**COUNT I**  
**INFRINGEMENT OF U.S. PATENT NO. 6,954,431**

82. Plaintiffs reference and incorporate by reference the preceding paragraphs of this Complaint as if fully set forth herein.

83. Riverbed designs, makes, uses, sells, and/or offers for sale in the United States products and/or services for managing data traffic comprising a plurality of micro-flows through a network.

84. Riverbed designs, makes, sells, offers to sell, imports, and/or uses Riverbed’s flow processing and Quality of Service (“QoS”) products and services, including but not limited to the Riverbed Optimization System (“RiOS”) versions 9.0 and later, which is incorporated into Riverbed Steelhead appliances, including but not limited to the following models: CX series Virtual Steelhead, next generation VCX, Steelhead CX 3070, Steelhead CX 3080, Steelhead CX 5070, Steelhead CX 5080, Steelhead CX 570, Steelhead CX 580, Steelhead CX 7070, Steelhead

CX 7080, Steelhead CX 770, Steelhead CX 780, Steelhead GX 10000, Steelhead EX 1160, Steelhead EX 1260, Steelhead EX 1360 Steelhead 1360P, Steelhead EX 560, Steelhead EX 760, Cloud Steelhead, SaaS Accelerator, CMC-8151 (CMC-VE), and SCC 1000 (collectively, the “Riverbed ‘431 Products(s)”).

85. One or more Riverbed subsidiaries and/or affiliates use the Riverbed ‘431 Products in regular business operations.

86. One or more of the Riverbed ‘431 Products include technology for managing data traffic comprising a plurality of micro-flows through a network.

87. One or more of the Riverbed ‘431 Products determine the capacity of a buffer containing a micro-flow based on a characteristic.

88. One or more of the Riverbed ‘431 Products assign an acceptable threshold value for the capacity of the buffer over a predetermined period of time.

89. One or more of the Riverbed ‘431 Products delegate a portion of available bandwidth in the network to the micro-flow.

90. The Riverbed ‘431 Products enable the setting of thresholds for a buffer that include the ability to set a threshold as a percentage of the buffer.

91. One or more of the Riverbed ‘431 Products use the buffer for damping jitter associated with the micro-flow.

92. The Riverbed ‘431 Products use buffers to limit jitter which is delay variance.

93. Riverbed has directly infringed and continues to directly infringe the ‘431 patent by, among other things, making, using, offering for sale, and/or selling technology for managing data traffic comprising a plurality of micro-flows through a network, including but not limited to the Riverbed ‘431 Products.

94. The Riverbed ‘431 Products are available to businesses and individuals throughout the United States.

95. The Riverbed ‘431 Products are provided to businesses and individuals located in the Western District of Texas.

96. By making, using, testing, offering for sale, and/or selling products and services for managing data traffic comprising a plurality of micro-flows through a network, including but not limited to the Riverbed ‘431 Products, Riverbed has injured Plaintiffs and is liable to Plaintiffs for directly infringing one or more claims of the ‘431 patent, including at least claim 1 pursuant to 35 U.S.C. § 271(a).

97. Riverbed also indirectly infringes the ‘431 patent by actively inducing infringement under 35 USC § 271(b).

98. Riverbed has had knowledge of the ‘431 patent since at least service of this Complaint or shortly thereafter, and Riverbed knew of the ‘431 patent and knew of its infringement, including by way of this lawsuit.

99. Riverbed intended to induce patent infringement by third-party customers and users of the Riverbed ‘431 Products and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. Riverbed specifically intended and was aware that the normal and customary use of the accused products would infringe the ‘431 patent. Riverbed performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge of the ‘431 patent and with the knowledge that the induced acts would constitute infringement. For example, Riverbed provides the Riverbed ‘431 Products that have the capability of operating in a manner that infringe one or more of the claims of the ‘431 patent, including at least claim 1, and Riverbed further provides documentation

and training materials that cause customers and end users of the Riverbed ‘431 Products to utilize the products in a manner that directly infringe one or more claims of the ‘431 patent.<sup>19</sup> By providing instruction and training to customers and end-users on how to use the Riverbed ‘431 Products in a manner that directly infringes one or more claims of the ‘431 patent, including at least claim 1, Riverbed specifically intended to induce infringement of the ‘431 patent. Riverbed engaged in such inducement to promote the sales of the Riverbed ‘431 Products, e.g., through Riverbed user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the ‘431 patent. Accordingly, Riverbed has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the ‘431 patent, knowing that such use constitutes infringement of the ‘431 patent.

100. The ‘431 patent is well-known within the industry as demonstrated by multiple citations to the ‘431 patent in published patents and patent applications assigned to technology companies and academic institutions. Riverbed is utilizing the technology claimed in the ‘431 patent without paying a reasonable royalty. Riverbed is infringing the ‘431 patent in a manner best described as willful, wanton, malicious, in bad faith, deliberate, consciously wrongful, flagrant, or characteristic of a pirate.

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<sup>19</sup> See, e.g., *SteelHead Management Console User’s Guide Version 9.0*, RIVERBED DOCUMENTATION (December 2014); *SteelHead User Guide Version 9.10.1*, RIVERBED DOCUMENTATION (December 2020); *QoS On SteelHeads Feature Module RiOS Version 9.0 and Later*, RIVERBED DOCUMENTATION (December 2016); Brandon Carroll, *Configuring QoS with SteelHeads – Under the Hood WAN Optimization Series*, RIVERBED YOUTUBE CHANNEL (July 6, 2020), available at: <https://www.youtube.com/watch?v=SDun3oaYgY8>; *Riverbed Optimization System (RiOS) 9.1 – A Technical Overview*, RIVERBED DOCUMENTATION (2015); *SteelHead User Guide Version 9.10*, RIVERBED DOCUMENTATION (May 2020); *SteelHead Installation and Configuration Guide Version 9.10*, RIVERBED DOCUMENTATION (September 2020); *SteelHead Deployment Guide Version 9.10.0*, RIVERBED DOCUMENTATION (May 2020).

101. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the ‘431 patent.

102. As a result of Riverbed’s infringement of the ‘431 patent, Plaintiffs have suffered monetary damages, and seek recovery in an amount adequate to compensate for Riverbed’s infringement, but in no event less than a reasonable royalty for the use made of the invention by Riverbed together with interest and costs as fixed by the Court.

**COUNT II**  
**INFRINGEMENT OF U.S. PATENT NO. 6,977,932**

103. Plaintiffs reference and incorporate by reference the preceding paragraphs of this Complaint as if fully set forth herein.

104. Riverbed designs, makes, sells, offers to sell, imports, and/or uses Riverbed’s SteelConnect EX products and services such as SteelConnect EX Director versions 16.1R2 and later and SteelConnect EX FlexVNF versions 16.1R2 and later, which are incorporated into Riverbed SteelConnect appliances, including but not limited to the following models: SDEX-6080, SteelConnect Director-80, SteelConnect Analytics-80, EX-385, EX-485, EX-685, EX-580, EX-780, and EX-3080 (collectively, the “Riverbed ‘932 Products(s)”).

105. One or more Riverbed subsidiaries and/or affiliates use the Riverbed ‘932 Products in regular business operations.

106. Riverbed has directly infringed and continues to directly infringe the ‘932 patent by, among other things, making, using, offering for sale, and/or selling technology that utilize flow state information to perform a method of network tunneling.

107. One or more of the Riverbed ‘932 Products utilize flow state information to perform a network tunneling method.

108. One or more of the Riverbed ‘932 Products create a flow block having flow state information for a received first data packet of a micro-flow.

109. One or more of the Riverbed ‘932 Products store a tunnel identifier for the micro-flow in the flow block, the tunnel identifier identifying a selected network tunnel to be used to transmit the data packet.

110. One or more of the Riverbed ‘932 Products index an aggregate flow block using the tunnel identifier.

111. One or more of the Riverbed ‘932 Products utilize an aggregate flow block with tunnel specific information for the selected network tunnel and that stores statistics for the selected network tunnel.

112. One or more of the Riverbed ‘932 Products transmit data packets using the selected network tunnel based on the tunnel specific information.

113. The Riverbed ‘932 Products are available to businesses and individuals throughout the United States.

114. The Riverbed ‘932 Products are provided to businesses and individuals located in the Western District of Texas.

115. By making, using, testing, offering for sale, and/or selling products utilizing flow state information to perform a method of network tunneling, including but not limited to the Riverbed ‘932 Products, Riverbed has injured Plaintiffs and is liable to Plaintiffs for directly infringing one or more claims of the ‘932 patent, including at least claim 1 pursuant to 35 U.S.C. § 271(a).

116. Riverbed also indirectly infringes the ‘932 patent by actively inducing infringement under 35 USC § 271(b).

117. Riverbed has had knowledge of the ‘932 patent since at least service of this Complaint or shortly thereafter, and Riverbed knew of the ‘932 patent and knew of its infringement, including by way of this lawsuit.

118. Riverbed intended to induce patent infringement by third-party customers and users of the Riverbed ‘932 Products and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. Riverbed specifically intended and was aware that the normal and customary use of the accused products would infringe the ‘932 patent. Riverbed performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge of the ‘932 patent and with the knowledge that the induced acts would constitute infringement. For example, Riverbed provides the Riverbed ‘932 Products that have the capability of operating in a manner that infringe one or more of the claims of the ‘932 patent, including at least claim 1, and Riverbed further provides documentation and training materials that cause customers and end users of the Riverbed ‘932 Products to utilize the products in a manner that directly infringe one or more claims of the ‘932 patent.<sup>20</sup> By providing instruction and training to customers and end-users on how to use the Riverbed ‘932

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<sup>20</sup> See, e.g., *Configure Site-to-Site Tunnels Release 16.1R2*, RIVERBED DOCUMENTATION (September 2020); *SteelConnect EX FlexVNF Security Configuration Guide Version 20.2*, RIVERBED DOCUMENTATION (June 2020); *SD-WAN Deployment Guide SteelConnect and SteelHead SD*, RIVERBED DOCUMENTATION (June 2019); *Troubleshoot the SD-WAN Data Path*, RIVERBED DOCUMENTATION (September 2020); *SteelConnect Manager User Guide Gateway Models SDI-130/130W, SDI-330, SDI-1030, SDI-2030, SDI-5030, Version 2.14.0*, RIVERBED DOCUMENTATION (September 2020); *Configure Interfaces Release 16.1R2*, RIVERBED DOCUMENTATION (October 2020); *SteelConnect EX FlexVNF Alarms Version 20.2*, RIVERBED DOCUMENTATION (June 2020); *SteelConnect EX Solution Overview Guide Version 16.1R2*, RIVERBED DOCUMENTATION (December 2019); *SteelConnect EX FlexVNF Security Configuration Guide Version 16.1R2*, RIVERBED DOCUMENTATION (December 2019); *SteelConnect EX FlexVNF Advanced SD-WAN Configuration Guide Version 16.1R2*, RIVERBED DOCUMENTATION (December 2019); *SteelConnect EX FlexVNF Network and System Configuration Guide Version 20.2 – Document Version 1.1*, RIVERBED DOCUMENTATION (June 2020); *Virtual SteelHead Installation Guide for SteelConnect EX Version 20.2 and later – Document Version 1.1*, RIVERBED DOCUMENTATION (November 2020); Josh Dobies, *Riverbed SteelConnect SD-WAN Demo with Vivek Ganti*, TECH FIELD DAY YOUTUBE CHANNEL (October 2, 2017), available at: <https://www.youtube.com/watch?v=320j1A2z374>.

Products in a manner that directly infringes one or more claims of the ‘932 patent, including at least claim 1, Riverbed specifically intended to induce infringement of the ‘932 patent. Riverbed engaged in such inducement to promote the sales of the Riverbed ‘932 Products, e.g., through Riverbed user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the ‘932 patent. Accordingly, Riverbed has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the ‘932 patent, knowing that such use constitutes infringement of the ‘932 patent.

119. The ‘932 patent is well-known within the industry as demonstrated by multiple citations to the ‘932 patent in published patents and patent applications assigned to technology companies and academic institutions. Riverbed is utilizing the technology claimed in the ‘932 patent without paying a reasonable royalty. Riverbed is infringing the ‘932 patent in a manner best described as willful, wanton, malicious, in bad faith, deliberate, consciously wrongful, flagrant, or characteristic of a pirate.

120. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the ‘932 patent.

121. As a result of Riverbed’s infringement of the ‘932 patent, Plaintiffs have suffered monetary damages, and seek recovery in an amount adequate to compensate for Riverbed’s infringement, but in no event less than a reasonable royalty for the use made of the invention by Riverbed together with interest and costs as fixed by the Court.

**COUNT III**  
**INFRINGEMENT OF U.S. PATENT NO. 8,085,775**

122. Plaintiffs reference and incorporate by reference the preceding paragraphs of this Complaint as if fully set forth herein.

123. Riverbed designs, makes, uses, sells, and/or offers for sale in the United States products and/or services for identifying and handling a single application flow of a plurality of information packets.

124. Riverbed designs, makes, sells, offers to sell, imports, and/or uses Riverbed SteelHead appliances and services with RiOS versions 8.5 or later, including models: 150, 250, 550, 1050, 2050, 5050, 6050, 7050, CMC 8150, CMC-8151 (CMC-VE), CX Series Virtual Steelhead, Next Generation VCX, SCC 1000, Steelhead CX 1555, Steelhead CX 255, Steelhead CX 3070, SteelHead CX 3070 SD, Steelhead CX 3080, Steelhead CX 5055, Steelhead CX 5070, Steelhead CX 5080, Steelhead CX 555, Steelhead CX 570, SteelHead CX 570 SD, Steelhead CX 580, Steelhead CX 7055, Steelhead CX 7070, Steelhead CX 7080, Steelhead CX 755, Steelhead CX 770, SteelHead CX 770 SD, Steelhead CX 780, SteelHead GX 10000, and Cloud Steelhead Appliance Software (OVA) Versions 8.5.2c and later (collectively, the “Riverbed ‘775 Products(s)”).

125. One or more Riverbed subsidiaries and/or affiliates use the Riverbed ‘775 Products in regular business operations.

126. One or more of the Riverbed ‘775 Products include technology for identifying and handling a single application flow of a plurality of information packets.

127. Riverbed has directly infringed and continues to directly infringe the ‘775 patent by, among other things, making, using, offering for sale, and/or selling technology for identifying and handling a single application flow of a plurality of information packets, including but not limited to the Riverbed ‘775 Products.

128. One or more of the Riverbed ‘775 Products creates a flow block as the first packet of a flow is processed by a router.

129. One or more of the Riverbed ‘775 Products utilize a flow block adapted to store payload-content agnostic behavioral statistics about the flow.

130. One or more of the Riverbed ‘775 Products update the flow block with the flow’s payload-content agnostic behavioral statistics as packets belonging to the flow are processed by the router.

131. One or more of the Riverbed ‘775 Products utilize a flow incapable of being identified by header information alone.

132. One or more of the Riverbed ‘775 Products heuristically determine whether at least one user-specified policy is satisfied by the payload-content agnostic behavioral statistics stored in the flow block.

133. One or more of the Riverbed ‘775 Products apply to at least one packet belonging to at least one user-specified action that is mapped to the user-specified policy that is satisfied by the payload-content agnostic behavioral statistics upon determining that the user-specified policy is satisfied by the payload-content agnostic behavioral statistics.

134. One or more of the Riverbed ‘775 Products include functionality wherein the payload-content agnostic behavioral statistics for the flow are calculated by the router.

135. One or more of the Riverbed ‘775 Products include functionality wherein the payload-content agnostic behavioral statistics reflect the empirical behavior of the flow.

136. One or more of the Riverbed ‘775 Products include functionality wherein at least one of the payload-content agnostic behavioral statistics is chosen from the group consisting of: (1) total byte count accumulated for the flow, (2) flow life duration, (3) average rate of flow, (4) average packet size, (5) average packet rate, (6) average inter-packet gap, (7) instantaneous flow rate, and (8) moving average flow rate.

137. The Riverbed ‘775 Products are available to businesses and individuals throughout the United States.

138. The Riverbed ‘775 Products are provided to businesses and individuals located in the Western District of Texas.

139. By making, using, testing, offering for sale, and/or selling products and services for identifying and handling a single application flow of a plurality of information packets, including but not limited to the Riverbed ‘775 Products, Riverbed has injured Plaintiffs and is liable to Plaintiffs for directly infringing one or more claims of the ‘775 patent, including at least claim 1 pursuant to 35 U.S.C. § 271(a).

140. Riverbed also indirectly infringes the ‘775 patent by actively inducing infringement under 35 USC § 271(b).

141. Riverbed has had knowledge of the ‘775 patent since at least service of this Complaint or shortly thereafter, and Riverbed knew of the ‘775 patent and knew of its infringement, including by way of this lawsuit.

142. Riverbed intended to induce patent infringement by third-party customers and users of the Riverbed ‘775 Products and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. Riverbed specifically intended and was aware that the normal and customary use of the accused products would infringe the ‘775 patent. Riverbed performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge of the ‘775 patent and with the knowledge that the induced acts would constitute infringement. For example, Riverbed provides the Riverbed ‘775 Products that have the capability of operating in a manner that infringe one or more of the claims of the ‘775 patent, including at least claim 1, and Riverbed further provides documentation

and training materials that cause customers and end users of the Riverbed ‘775 Products to utilize the products in a manner that directly infringe one or more claims of the ‘775 patent.<sup>21</sup> By providing instruction and training to customers and end-users on how to use the Riverbed ‘775 Products in a manner that directly infringes one or more claims of the ‘775 patent, including at least claim 1, Riverbed specifically intended to induce infringement of the ‘775 patent. Riverbed engaged in such inducement to promote the sales of the Riverbed ‘775 Products, e.g., through Riverbed user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the ‘775 patent. Accordingly, Riverbed has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the ‘775 patent, knowing that such use constitutes infringement of the ‘775 patent.

143. The ‘775 patent is well-known within the industry as demonstrated by multiple citations to the ‘775 patent in published patents and patent applications assigned to technology companies and academic institutions. Riverbed is utilizing the technology claimed in the ‘775 patent without paying a reasonable royalty. Riverbed is infringing the ‘775 patent in a manner

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<sup>21</sup> See, e.g., *Riverbed Optimization System (RiOS) 9.1 A Technical Overview*, RIVERBED DOCUMENTATION (2015); *SteelHead Deployment Guide – Including The SteelCentral Controller For SteelHead Mobile*, RIVERBED DOCUMENTATION (December 2017); *SteelHead Management Console User’s Guide – SteelHead DX Appliance Version 9.0*, RIVERBED DOCUMENTATION (November 2014); *Steelhead Hybrid Networking: Increase Network Application Performance And Availability While Reducing Costs With Riverbed Path Selection*, RIVERBED WHITEPAPER (2014); *SteelHead Deployment Guide – Including The SteelCentral Controller For Stead Mobile*, RIVERBED DOCUMENTATION (December 2019); *SteelHead Installation and Configuration Guide: SteelHead GX10000, SteelHead CX x70, xx70, xx55, Version 9.7*, RIVERBED DOCUMENTATION (December 2017); *SteelHead Deployment Guide – Including The SteelCentral Controller For Stead Mobile*, RIVERBED DOCUMENTATION (July 2018); *QoS on SteelHeads Feature Module - SteelHead CX (x70), (xx70), (xx55), RiOS Version 9.0 and later*, RIVERBED DOCUMENTATION (May 2016); *SteelHead Installation and Configuration Guide – SteelHead CX (xx70), (x70), (xx55), SteelHead (xx50), Version 9.0*, RIVERBED DOCUMENTATION (May 2015); and *SteelCentral Controller for SteelHead User Guide Version 9.9*, RIVERBED DOCUMENTATION (March 2019).

best described as willful, wanton, malicious, in bad faith, deliberate, consciously wrongful, flagrant, or characteristic of a pirate.

144. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the ‘775 patent.

145. As a result of Riverbed’s infringement of the ‘775 patent, Plaintiffs have suffered monetary damages, and seek recovery in an amount adequate to compensate for Riverbed’s infringement, but in no event less than a reasonable royalty for the use made of the invention by Riverbed together with interest and costs as fixed by the Court.

**COUNT IV**  
**INFRINGEMENT OF U.S. PATENT NO. 8,243,593**

146. Plaintiffs reference and incorporate by reference the preceding paragraphs of this Complaint as if fully set forth herein.

147. Riverbed designs, makes, uses, sells, and/or offers for sale in the United States products and/or services for processing a flow of a series of information packets.

148. Riverbed designs, makes, sells, offers to sell, imports, and/or uses Riverbed’s SteelConnect EX versions 16.1R2 and later, which are incorporated into Riverbed SteelConnect appliances, including but not limited to the following models: EX-385, EX-485, EX-685, EX-580, EX-780, and EX-3080 (collectively, the “Riverbed ‘593 Product(s)”).

149. One or more Riverbed subsidiaries and/or affiliates use the Riverbed ‘593 Products in regular business operations.

150. One or more of the Riverbed ‘593 Products include technology for processing a flow of a series of information packets. Specifically, the Riverbed ‘593 Products maintain a set of behavioral statistics based on each and every information packet belonging to a flow.

151. The Riverbed ‘593 Products are available to businesses and individuals throughout the United States.

152. The Riverbed ‘593 Products are provided to businesses and individuals located in the Western District of Texas.

153. Riverbed has directly infringed and continues to directly infringe the ‘593 patent by, among other things, making, using, offering for sale, and/or selling products and services for processing a flow of a series of information packets.

154. The Riverbed ‘593 Products maintain a set of behavioral statistics for the flow, wherein the set of behavioral statistics is updated based on each information packet belonging to the flow, as each information packet is processed.

155. The Riverbed ‘593 Products enable the generation of behavioral statistics based on each packet that is processed.

156. The Riverbed ‘593 Products determine, based at least partially upon the set of behavioral statistics, whether the flow is exhibiting undesirable behavior.

157. The Riverbed ‘593 Products determine whether the flow is exhibiting undesirable behavior regardless of the presence or absence of congestion.

158. The Riverbed ‘593 Products enforce a penalty on the flow in response to a determination that the flow is exhibiting undesirable behavior.

159. By making, using, testing, offering for sale, and/or selling products and services for processing a flow of a series of information packets, including but not limited to the Riverbed ‘593 Products, Riverbed has injured Plaintiffs and is liable for directly infringing one or more claims of the ‘593 patent, including at least claim 4, pursuant to 35 U.S.C. § 271(a).

160. Riverbed also indirectly infringes the ‘593 patent by actively inducing infringement under 35 USC § 271(b).

161. Riverbed has had knowledge of the ‘593 patent since at least service of this Complaint or shortly thereafter, and Riverbed knew of the ‘593 patent and knew of its infringement, including by way of this lawsuit.

162. Riverbed intended to induce patent infringement by third-party customers and users of the Riverbed ‘593 Products and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. Riverbed specifically intended and was aware that the normal and customary use of the accused products would infringe the ‘593 patent. Riverbed performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge of the ‘593 patent and with the knowledge that the induced acts would constitute infringement. For example, Riverbed provides the Riverbed ‘593 Products that have the capability of operating in a manner that infringe one or more of the claims of the ‘593 patent, including at least claim 4, and Riverbed further provides documentation and training materials that cause customers and end users of the Riverbed ‘593 Products to utilize the products in a manner that directly infringe one or more claims of the ‘593 patent.<sup>22</sup> By

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<sup>22</sup> See, e.g., *SteelConnect EX FlexVNF Alarms Version 20.2*, RIVERBED DOCUMENTATION (June 2020); *SteelConnect EX Solution Overview Guide Version 16.1R2*, RIVERBED DOCUMENTATION (December 2019); *SteelConnect EX FlexVNF Security Configuration Guide Version 16.1R2*, RIVERBED DOCUMENTATION (December 2019); *SteelConnect EX FlexVNF Advanced SD-WAN Configuration Guide Version 16.1R2*, RIVERBED DOCUMENTATION (December 2019); *SteelConnect EX FlexVNF Network and System Configuration Guide Version 20.2 – Document Version 1.1*, RIVERBED DOCUMENTATION (June 2020); *Virtual SteelHead Installation Guide for SteelConnect EX Version 20.2 and later – Document Version 1.1*, RIVERBED DOCUMENTATION (November 2020); Josh Dobies, *Riverbed SteelConnect SD-WAN Demo with Vivek Ganti*, TECH FIELD DAY YOUTUBE CHANNEL (October 2, 2017), available at: <https://www.youtube.com/watch?v=320jIA2z374>; *SteelConnect EX FlexVNF Security Configuration Guide Version 20.2*, RIVERBED DOCUMENTATION (June 2020); and *SteelConnect EX: Configure NGFW – For Releases 16.1R2 and later*, RIVERBED DOCUMENTATION (October 2020).

providing instruction and training to customers and end-users on how to use the Riverbed ‘593 Products in a manner that directly infringes one or more claims of the ‘593 patent, including at least claim 4, Riverbed specifically intended to induce infringement of the ‘593 patent. Riverbed engaged in such inducement to promote the sales of the Riverbed ‘593 Products, e.g., through Riverbed user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the ‘593 patent. Accordingly, Riverbed has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the ‘593 patent, knowing that such use constitutes infringement of the ‘593 patent.

163. The ‘593 patent is well-known within the industry as demonstrated by multiple citations to the ‘593 patent in published patents and patent applications assigned to technology companies and academic institutions. Riverbed is utilizing the technology claimed in the ‘593 patent without paying a reasonable royalty. Riverbed is infringing the ‘593 patent in a manner best described as willful, wanton, malicious, in bad faith, deliberate, consciously wrongful, flagrant, or characteristic of a pirate.

164. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the ‘593 patent.

165. As a result of Riverbed’s infringement of the ‘593 patent, Plaintiffs have suffered monetary damages, and seek recovery in an amount adequate to compensate for Riverbed’s infringement, but in no event less than a reasonable royalty for the use made of the invention by Riverbed together with interest and costs as fixed by the Court.

COUNT V  
INFRINGEMENT OF U.S. PATENT No. 8,817,790

166. Plaintiffs reference and incorporate by reference the preceding paragraphs of this Complaint as if fully set forth herein.

167. Riverbed designs, makes, uses, sells, and/or offers for sale in the United States products and/or services for handling a flow of information packets.

168. Riverbed designs, makes, sells, offers to sell, imports, and/or uses Riverbed SteelHead appliances and services with RiOS versions 8.5 or later including models: 150, 250, 550, 1050, 2050, 5050, 6050, 7050, CMC 8150, CMC-8151 (CMC-VE), CX Series Virtual Steelhead, Next Generation VCX, SCC 1000, Steelhead CX 1555, Steelhead CX 255, Steelhead CX 3070, SteelHead CX 3070 SD, Steelhead CX 3080, Steelhead CX 5055, Steelhead CX 5070, Steelhead CX 5080, Steelhead CX 555, Steelhead CX 570, SteelHead CX 570 SD, Steelhead CX 580, Steelhead CX 7055, Steelhead CX 7070, Steelhead CX 7080, Steelhead CX 755, Steelhead CX 770, SteelHead CX 770 SD, Steelhead CX 780, SteelHead GX 10000, and Cloud Steelhead Appliance Software (OVA) Versions 8.5.2c and later (collectively, the “Riverbed ‘790 Products(s)”).

169. One or more Riverbed subsidiaries and/or affiliates use the Riverbed ‘790 Products in regular business operations.

170. One or more of the Riverbed ‘790 Products include technology for handling a flow of information packets. Specifically, the Riverbed ‘790 Product process information packets that have the same header information.

171. The Riverbed ‘790 Products are available to businesses and individuals throughout the United States.

172. The Riverbed ‘790 Products are provided to businesses and individuals located in the Western District of Texas.

173. Riverbed has directly infringed and continues to directly infringe the ‘790 patent by, among other things, making, using, offering for sale, and/or selling technology for handling a flow of information packets, including but not limited to the Riverbed ‘790 Products.

174. The Riverbed ‘790 Products process a flow comprised of two or more information packets having header information in common. Further, the Riverbed ‘790 Products use header-independent statistics for traffic classification. These statistics include bit rate, packet counts, and byte counts that are used to identify a particular traffic type.

175. The Riverbed ‘790 Products store header-independent statistics about the flow in a flow block associated with the flow.

176. The Riverbed ‘790 Products perform traffic matching using header-independent statistics such as: total number of input packets, total number of output packets, input bit rates, and output bit rates.

177. The Riverbed ‘790 Products update the header-independent statistics in the flow block as each information packet belonging to the flow is processed. The header-independent statistics are stored in a flow block associated with the flow.

178. The Riverbed ‘790 Products categorize the flow as one or more traffic types by determining whether the header-independent statistics match one or more profiles corresponding to a traffic type.

179. The Riverbed ‘790 Products perform an operation that is determined according to the one or more traffic types on one or more information packets belonging to the flow if the one or more traffic types match one or more particular traffic types designated by a user.

180. By making, using, testing, offering for sale, and/or selling products and services, including but not limited to the Riverbed ‘790 Products, Riverbed has injured Plaintiffs and is liable for directly infringing one or more claims of the ‘790 patent, including at least claim 1, pursuant to 35 U.S.C. § 271(a).

181. Riverbed also indirectly infringes the ‘790 patent by actively inducing infringement under 35 USC § 271(b).

182. Riverbed has had knowledge of the ‘790 patent since at least service of this Complaint or shortly thereafter, and Riverbed knew of the ‘790 patent and knew of its infringement, including by way of this lawsuit.

183. Riverbed intended to induce patent infringement by third-party customers and users of the Riverbed ‘790 Products and had knowledge that the inducing acts would cause infringement or was willfully blind to the possibility that its inducing acts would cause infringement. Riverbed specifically intended and was aware that the normal and customary use of the accused products would infringe the ‘790 patent. Riverbed performed the acts that constitute induced infringement, and would induce actual infringement, with knowledge of the ‘790 patent and with the knowledge that the induced acts would constitute infringement. For example, Riverbed provides the Riverbed ‘790 Products that have the capability of operating in a manner that infringe one or more of the claims of the ‘790 patent, including at least claim 1, and Riverbed further provides documentation and training materials that cause customers and end users of the Riverbed ‘790 Products to utilize the products in a manner that directly infringe one or more claims of the ‘790 patent.<sup>23</sup> By

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<sup>23</sup> See, e.g., *Riverbed Optimization System (RiOS) 9.1 A Technical Overview*, RIVERBED DOCUMENTATION (2015); *SteelHead Deployment Guide – Including The SteelCentral Controller For SteelHead Mobile*, RIVERBED DOCUMENTATION (December 2017); *SteelHead Management Console User’s Guide – SteelHead DX Appliance Version 9.0*, RIVERBED DOCUMENTATION (November 2014); *Steelhead Hybrid Networking: Increase Network Application Performance And Availability While Reducing Costs With Riverbed Path*

providing instruction and training to customers and end-users on how to use the Riverbed ‘790 Products in a manner that directly infringes one or more claims of the ‘790 patent, including at least claim 1, Riverbed specifically intended to induce infringement of the ‘790 patent. Riverbed engaged in such inducement to promote the sales of the Riverbed ‘790 Products, e.g., through Riverbed user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the ‘790 patent. Accordingly, Riverbed has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the ‘790 patent, knowing that such use constitutes infringement of the ‘790 patent.

184. The ‘790 patent is well-known within the industry as demonstrated by multiple citations to the ‘790 patent in published patents and patent applications assigned to technology companies and academic institutions. Riverbed is utilizing the technology claimed in the ‘790 patent without paying a reasonable royalty. Riverbed is infringing the ‘790 patent in a manner best described as willful, wanton, malicious, in bad faith, deliberate, consciously wrongful, flagrant, or characteristic of a pirate.

185. To the extent applicable, the requirements of 35 U.S.C. § 287(a) have been met with respect to the ‘790 patent.

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*Selection, RIVERBED WHITEPAPER (2014); SteelHead Deployment Guide – Including The SteelCentral Controller For Stead Mobile, RIVERBED DOCUMENTATION (December 2019); SteelHead Installation and Configuration Guide: SteelHead GX10000, SteelHead CX x70, xx70, xx55, Version 9.7, RIVERBED DOCUMENTATION (December 2017); SteelHead Deployment Guide – Including The SteelCentral Controller For Stead Mobile, RIVERBED DOCUMENTATION (July 2018); QoS on SteelHeads Feature Module - SteelHead CX (x70), (xx70), (xx55), RiOS Version 9.0 and later, RIVERBED DOCUMENTATION (May 2016); SteelHead Installation and Configuration Guide – SteelHead CX (xx70), (x70), (xx55), SteelHead (xx50), Version 9.0, RIVERBED DOCUMENTATION (May 2015); and SteelCentral Controller for SteelHead User Guide Version 9.9, RIVERBED DOCUMENTATION (March 2019).*

186. As a result of Riverbed's infringement of the '790 patent, Plaintiffs have suffered monetary damages, and seek recovery in an amount adequate to compensate for Riverbed's infringement, but in no event less than a reasonable royalty for the use made of the invention by Riverbed together with interest and costs as fixed by the Court.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiffs Sable IP, LLC and Sable Networks, Inc. respectfully request that this Court enter:

- A. A judgment in favor of Plaintiffs that Riverbed has infringed, either literally and/or under the doctrine of equivalents, the '431, '932, '775, '593, and '790 patents;
- B. An award of damages resulting from Riverbed's acts of infringement in accordance with 35 U.S.C. § 284;
- C. A judgment and order finding that Riverbed's infringement was willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or characteristic of a pirate within the meaning of 35 U.S.C. § 284 and awarding to Plaintiffs enhanced damages.
- D. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to Plaintiffs their reasonable attorneys' fees against Riverbed.
- E. Any and all other relief to which Plaintiffs may show themselves to be entitled.

**JURY TRIAL DEMANDED**

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Plaintiffs Sable IP, LLC and Sable Networks, Inc. request a trial by jury of any issues so triable by right.

Dated: February 25, 2021

Respectfully submitted,

/s/ Daniel P. Hipskind

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